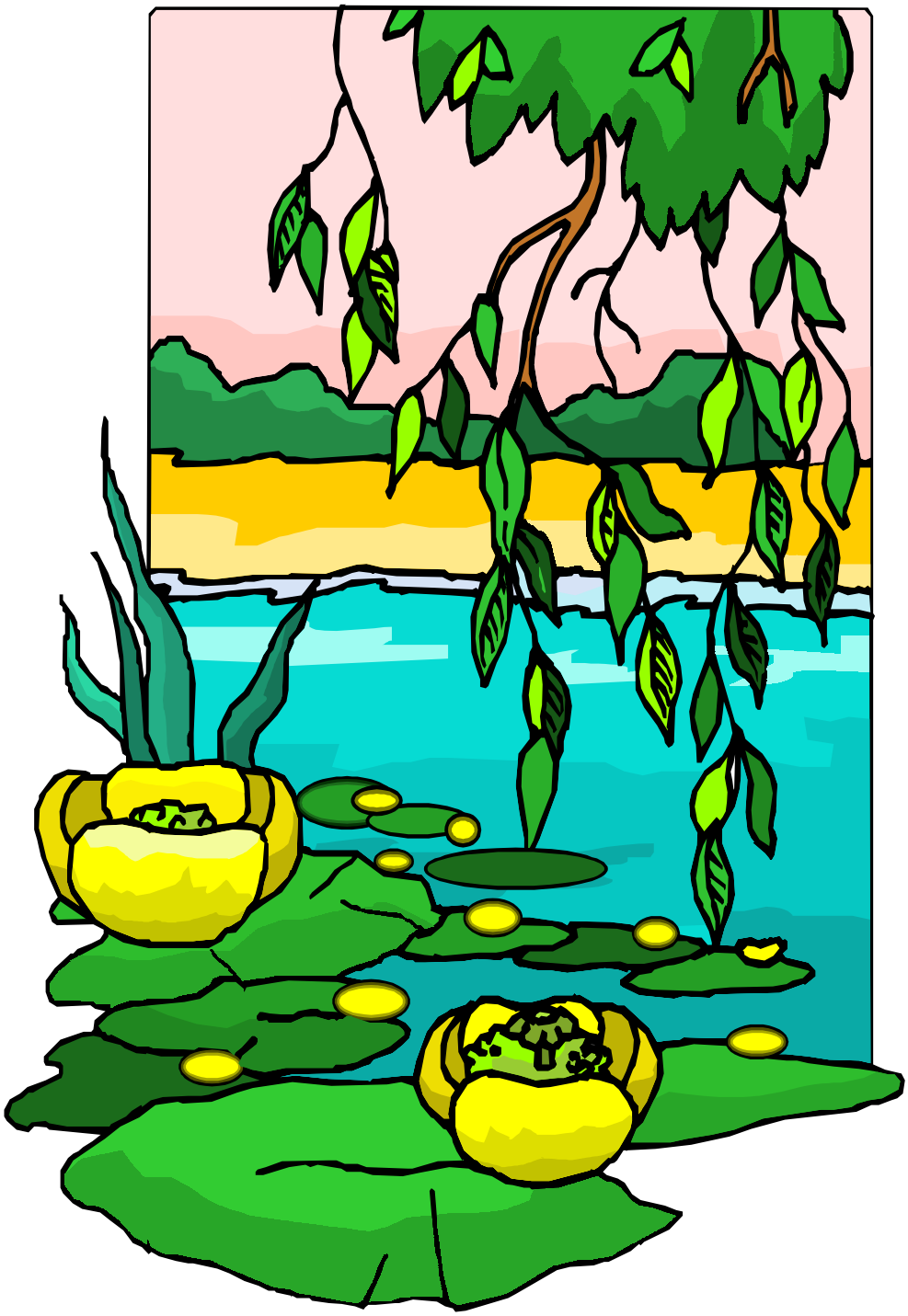
FFY 2002
Annual Report

Indiana
Nonpoint Source
Pollution
Management
Program



Indiana Department of Environmental Management
Office of Water Quality
Watershed Management Section
September 2002

Table of Contents

Attachments

Nonpoint Source Pollution Program for Indiana
Annual Report 2001-2002

Introduction

This report highlights the principal programs that address nonpoint source pollution in Indiana. Indiana's Nonpoint Source Program relies on the communication and coordination of these and many other programs at both the State and local level. It should be noted that programs at the local level (such as outreach and restoration work) as well as through the Universities (such as Farm-A-Syst, Project WET, and Planning with POWER) also have a significant impact on reducing the State's nonpoint source pollutant loads.

Indiana Department of Environmental Management Program Highlights

Watershed Management Section

The Watershed Management Section manages three pass-through grant programs: Sections 319, 104(b)(3), and 205(j). Please see Appendices D and E for tracking of the administrative and water quality goals for the NPS Pollution Management Plan for Indiana.

A Project Manager in the Watershed Management Section is assigned to each grant project and closely tracks all project activities. Project Managers conduct at least quarterly site visits, review quarterly reports, sign off on invoices, and provide technical assistance. Project Managers also maintain project files and enter project progress in the Grant Reporting and Tracking System (GRTS) database, entering at least the required mandated elements, including quarterly reports and final reports as they are received. Total project expenditures and NPS loading reductions, if appropriate, are entered into GRTS upon project close out. Close relationships are developed between the sub-grantee and the Project Manager during the course of the project, increasing coordination and communication between IDEM and other agencies and organizations. Please refer to the GRTS database for specific tracking information on any sub-grant. A map of Section 319 projects can be found in Appendix A. A list of the open Section 319 projects in this fiscal year can be found in Appendix B. Reported load reductions for Section 319 projects can be found in Appendix C. Final reports and products from projects that closed over the last year are included as an attachment to this report, and a list of these closed projects can be found in Appendix F.

The Watershed Management Section has made great strides toward promoting and assisting with watershed planning and implementation through the Watershed Planning Team. This Team consists of a Team Leader and three Regional Watershed Conservationists (RWCs), who are all liaisons between IDEM and the Natural Resources Conservation Service, and a staff person from the Watershed Management Section. The RWCs provide hands-on assistance to local groups including training, technical assistance, inventory tools, facilitating stakeholder meetings, and assisting in the identification of financial and technical resources. This approach has been very successful at moving the watershed approach forward at the local level throughout Indiana. This group has partnered with the Indiana Association of Soil and Water Conservation Districts, Purdue University, and the Department of Natural Resources to further develop technical assistance and training programs. In the past year, two workshops were developed and presented regionally across the state. One focused on cultivating a local group, and the other focused on the watershed inventory process. These training materials are listed on the Watershed Management Section web site at http://www.IN.gov/idem/water/planbr/wsm/training.html, and are available upon request. This group is now working on ways to cultivate new watershed groups, and target both new watershed coordinators and existing watershed groups.

The Watershed Management Section has developed several guidance documents/tools to help grant recipients and groups with everything from managing their grant projects to developing quality watershed management plans. The grants guidance document, *The Care and Feeding of a Section 319 Grant*, has been updated and is available on the

web at http://www.IN.gov/idem/water/planbr/wsm/careandfeed.html. This document has been an extremely useful reference for grant recipients by providing information on the guidelines and requirements of the Section 319 Grant Program. With over 100 open 319 projects to manage, providing this type of reference document to grant recipients also makes life easier for the program's Project Managers. Since contracts with the State have recently changed to a task-based format, this document will need to be revised slightly in the near future. Another document undergoing a facelift is the *Watershed Action Guide for Indiana*. This guidance document for developing watershed management plans has been nationally recognized and can be accessed from both the IDEM web site (http://www.IN.gov/idem/water/planbr/wsm/wagi.html), as well as the ASIWPCA web site. The revised version should be complete by the end of the year, and will be accompanied by a Watershed Management Plan template that local groups can use as a starting point for a plan. This product will be available electronically and will incorporate many of the tips included in the Watershed Action Guide.

The Section has recently completed *Watershed Restoration Action Strategies* (WRASs) for all 8-digit HUC watersheds in the State. These are intended to be resource documents to assist with watershed planning at the local level. The WRASs are available on the Internet at http://www.IN.gov/idem/water/planbr/wsm/Wras.html.

The *BMP Load Reduction Estimating Workbook*, developed in conjunction with Illinois and Michigan, continues to provide load reduction information for appropriate practices. The Workbook is being utilized by all 319 projects doing applicable restoration work to measure environmental results (see Appendix C). The loading workbook may be found at http://www.IN.gov/idem/water/planbr/wsm/index.html.

Plans are in the works for a second State of Indiana Nonpoint Source Conference to be held in Indianapolis in June of 2003. The two day conference will focus on the social and economic impacts of nonpoint source pollution. Anticipated attendance for the conference is 200-250.

The Watershed Management Section has been working to increase coordination and communication with the TMDL group at IDEM. Efforts are being made to use watershed planning tools to achieve TMDL program goals. A watershed will soon be chosen to pilot a project to test the newly developed tools, and develop a TMDL in a watershed planning context. This will require cooperation between the TMDL group, Watershed Management Section and local stakeholder groups.

Another accomplishment over the past year has been a complete overhaul of the Internet site, located at http://www.in.gov/idem/water/planbr/wsm/index.html, where guidance documents, maps and summaries of grant projects, a map of the RWC areas of responsibility, completed WRASs, the Unified Watershed Assessment, and many other watershed planning resources may be accessed.

Wet Weather Section

This section administers the NPDES permit program for storm water runoff associated with industrial and construction activities, municipal separate storm sewer systems (MS4s), and combined sewer systems (CSOs or CSSs).

The Storm Water Group is continuing its work on preparation activities for the implementation of the NPDES Phase II Storm Water regulations. The Water Pollution Control Board has preliminarily adopted 327 IAC 15-13 (Rule 13), which will be Indiana's general permit for newly regulated Phase II MS4 entities. Approximately 200 Indiana entities (municipalities, counties, universities, etc.) will be required to submit a notice of intent application and Part A of the Storm Water Quality Management Plan 90 days after the rule becomes effective. Revisions to the existing general permits for industrial and construction activities (327 IAC 15-5 & 6: Rules 5 & 6) are ongoing via an external workgroup process. The Phase II revisions require that construction activities of 1 acre or more of land disturbance are now subject to regulation under the NPDES program. Indiana will also allow the new "conditional no exposure exclusion" for industries subject to the Rule 6 program. Preliminary adoption for these two rules is anticipated for later this year.

Work is also continuing on projects funded by the Storm Water Group's 104(b)(3) grant. Outreach activities to facilitate external understanding of the draft general permit language and program requirements have been funded by the grant. These activities will be on-going, as well as, the development of a new database. The database will be

used for permit compliance tracking and will allow the public easier access to NPDES storm water permit information.

In 2002, 106 Indiana cities face the challenge of how to address the legacy of combined sewers and are in the process of preparing plans, commonly referred to as Long Term Control Plans (LTCP) on how to abate the water quality impacts from these combined sewer overflows. The fix will be expensive, with national estimates nearing $5 billion for Indiana alone. The Long Term Control Plans will detail the scope of how water quality standards will be attained, the schedule of construction projects which may run 15 - 20 years, and the budget for these projects. By the close of year 2002, 64 of the 106 CSO communities are required to submit their LTCPs for approval by the wet weather staff of the Office of Water Quality. The remaining 41 communities will be required to submit their plans in year 2003 and early 2004.

Confined Feeding and Land Application Permit Programs

The Office of Land Quality, Permit Branch administers these two above permitting programs. The land application permit program oversees the land application of municipal biosolids, industrial byproducts and process wastewater. The confined feeding approval program regulates the construction of animal confinement barns and associated waste collection and storage facilities as well as the land application of manure.

On November 14, 2001 the Water Pollution Control Board gave final approval to the new Confined Feeding Operations regulation 327 IAC 16. It went into effect on March 10, 2002. Approximately 2,300 livestock and poultry operations have active state approvals and fall under the jurisdiction of the new regulation. The regulation serves to increase IDEM's regulatory oversight by requiring specific performance standards for waste storage facility design and construction as well as operational activities including the collection, storage and land application of wastes. The rule recognizes the importance of balancing the nutrients applied through manure application to match the nutrient demand of crops grown on the site. Records must be kept of manure application activities to assure proper application rates are being utilized thereby avoiding excess nutrient application to fields. The regulation also restricts the method of manure application on fields based on the slope of land and proximity to wells and surface waters. These factors all serve to reduce the potential of non point source pollution resulting from manure handling activities.

The land application permit program has continued to experience an increase in the number of facilities utilizing land application as a viable option for disposing of treated wastewater, wastewater treatment byproducts and industrial byproducts. Approximately 330 facilities have land application permits. Only materials that have a potential benefit to the soil are allowed to be land applied. The type of approved materials varies widely from treated municipal wastewater to tomato processing byproducts. All restrictions on land application are intended to minimize the risks of nutrients or other constituents from migrating off the application site via non point source pollution.

Water Quality Standards Section

This section generates the 305(b) report on state water quality (available at www.in.gov/idem/water/planbr/wqs/quality.html) sets water quality standards, administers the 401wetland certification program and deals with contaminated sediments.

In 1999, the Indiana Department of Environmental Management (IDEM) began the process of developing amendments to rules to establish wetland water quality standards and new rules to establish procedures and criteria for review of projects requiring water quality certification under section 401of the Clean Water Act. These rules will highlight the importance of wetlands and the natural beneficial uses they provide to the environment. The rules more clearly emphasize that influxes of pollutants to wetlands, either through point or nonpoint sources, are considered undesirable and harmful to wetland water quality. These rules were preliminarily adopted by the Water Pollution Control Board in February 2002. Coupled with increased public outreach on the importance of wetlands, IDEM believes that these rules will encourage conservation of wetland resources and promote efforts toward enhancing wetland buffers, incorporating wetland conservation into watershed management plans, and restoring wetlands as a part of comprehensive efforts to address nonpoint source issues in various parts of the state.

Currently, Indiana's wetland policy is being reviewed by a legislative committee, the Environmental Quality Service Council (EQSC), concerning the direction that Indiana's wetland policy should go in response to the recent Supreme Court Ruling regarding isolated wetlands and other wetland issues. These proposed wetland rules will not be adopted by the Water Pollution Control Board until the EQSC has issued its recommendations and report.

As a result of the Clean Water Action Plan, Indiana and the other states are currently trying to meet requirements set forth by EPA to develop nutrient criteria for various water body types. EPA has developed guidance as to how they would propose to develop nutrient criteria should states not develop their own process or criteria. EPA would develop criteria ranges on an ecoregional basis for each of four water body types (rivers and streams, lakes and reservoirs, wetlands, and estuaries). Criteria would be developed for Total Phosphorus, Total Nitrogen. Chlorophyll a, and some measure of turbidity or water transparency (secchi disc measurements for lakes and reservoirs and JTU, NTU, TSS, or similar measurements for rivers and streams). EPA has proposed criteria ranges for rivers and streams and lakes and reservoirs for each of these parameters for 17 of the Level III ecoregions. Those ecoregions include most of Indiana. Under the Clean Water Action Plan and EPA guidance, states are to have nutrient criteria in place in their water quality standards by the end of 2004. EPA has not yet developed guidance nor proposed criteria ranges for wetlands or estuaries.

EPA developed the criteria for each of the parameters by looking at available data for each water body type in the various ecoregions. EPA selected the 25th percentile of all the available data for each water body type in each ecoregion for each parameter as a level that they believe would be protective of all designated uses of these water bodies. They were not able to directly tie these proposed criteria to actual impairments of designated uses. State have serious concerns with this approach and are trying to collect data to support criteria that can be more closely associated with impairment of uses. The Region 5 states are concerned that they cannot develop these types of data in time to meet the 2004 deadline and have asked EPA to grant the states more time to gather, analyze and promulgate appropriate criteria. Indiana has developed a Draft Nutrient Criteria Development Plan that as been reviewed by EPA. The plan is currently being revised by Indiana based on EPA's comments. Indiana hopes to be able to relate nutrient levels to environmental impacts and develop criteria on the basis of this information. It is anticipated that this may require additional time in order to accomplish these studies.

Agricultural and other nonpoint sources are potential sources of phosphorus and nitrogen to water bodies and proper control of animal wastes, proper land application of these wastes, fertilizer application techniques and strategies, and other BMPs will be important in helping to attain any criteria for these parameters that are established. Funding and educational activities available through the 319 program to help farmers and others develop appropriate control and application strategies will be critical.

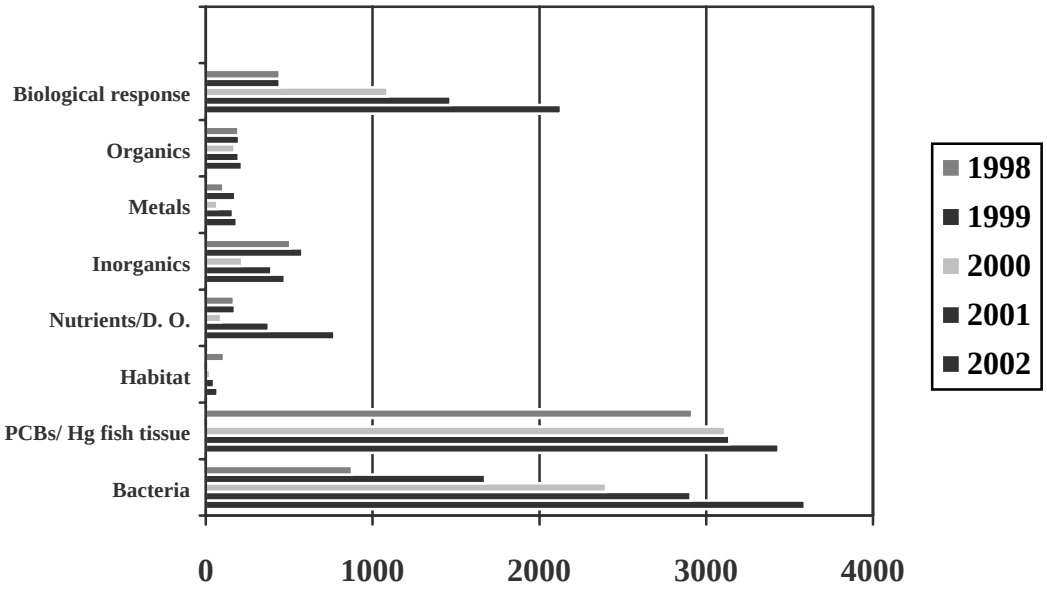
Non Point Water Quality Assessment

Section 305(b) of the federal Water Pollution Control Act requires states to prepare and submit to the U.S. Environmental Protection Agency (USEPA) a water quality assessment report of state water resources every two years. The Indiana Department of Environmental Management (IDEM), Office of Water Quality (OWQ), prepared the 2000 report to meet the reporting requirements of Sections 106, 305(b), 314, and 319 of the Clean Water Act. An electronic update that includes the most recent water quality assessments recorded in the state 305(b) Assessment Database has been submitted to USEPA Region 5 in odd numbered years through 2001.

Draft assessment values for 2002 are available at this time. Utilizing probabilistic sampling techniques, Indiana has been able to make some assessment of approximately 100 percent of the stream miles in the state for support of aquatic life support, with an estimated 64.5 percent fully supporting. Of the stream miles assessed for full body contact recreational use, 58.6 percent appeared to be fully supporting. All but one mile of Indiana's Lake Michigan shoreline supported aquatic life use. The Lake Michigan shoreline did not support full body contact recreational use.

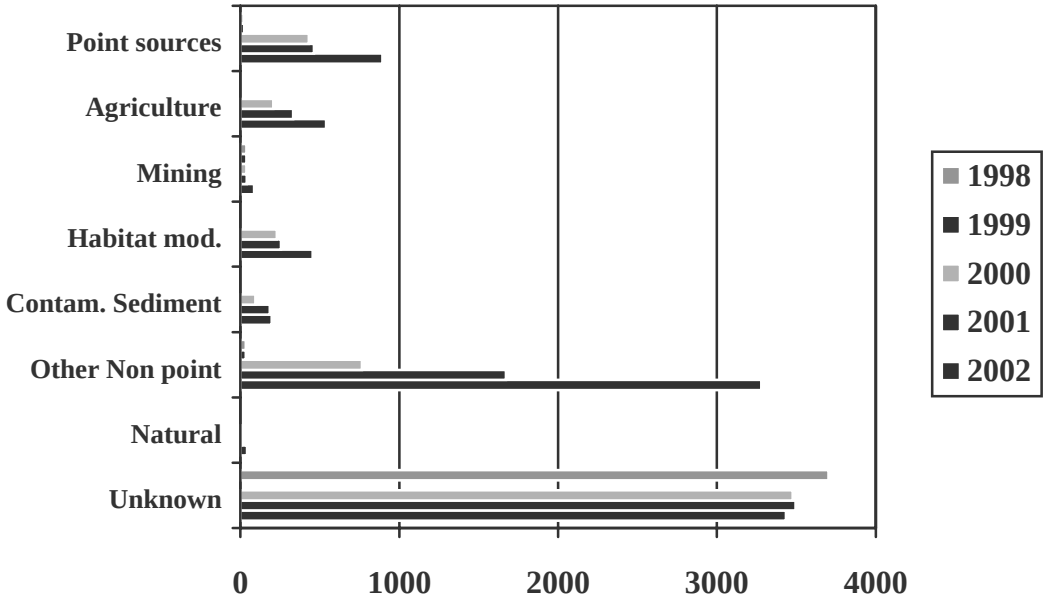
Since 1998 an added effort has been made to identify the anthropogenic activities associated with non point causes and sources of pollution. From 1998 to 2002, stream miles associated with non point stressors nutrients, bacteria, and biological response have more than tripled.

Stream Miles and Associated Stressors and Responses (Causes)



An increased effort has also been made to identify the anthropogenic activities associated with these stressors and responses. Non point was added as a source classification for Section 305(b) reporting in 1998. Since then, the number of impaired stream miles associated with agriculture, contaminated sediment, habitat modification, and other non point sources have increased by several orders of magnitude.

Stream Miles and Associated Activities (Sources)



Streams associated with non point sources of pollution are referred to the Watershed Management Section through the Section 305(b) water quality assessment process in order to focus resources on priority areas. Indiana waterbodies have been georeferenced to the National Hydrography Dataset. In the future, integrated mapping and

assessment tools should provide better ways to identify and prioritize areas in the state that are affected by non point sources of pollution.

Lakes Programs

The Biological Studies Section (BSS) of IDEM provides agency oversight and management of the Indiana Lakes Program. Overall coordination of this program continues to be contracted out to the Indiana University School of Public and Environmental Affairs (IU/SPEA) under the direction of Mr. William Jones through Section 319 funding. During 2001 the program conducted lake water quality assessments for trophic conditions on 105 lakes, coordinated volunteer monitoring efforts on 83 lakes, and published 4 issues of the *Water Column* newsletter.

IDEM staff closed out a $130,000 contract with IU/SPEA for the 2000-01 lake sampling seasons. In May 2002 a new $240,000 contract began for sampling of lakes during the years 2002-2004.

IDEM Lake Program staff continue efforts started with Dr. Tom Simon and the Indiana Lakes Management Society (ILMS) to conclude a probabilistic-based sampling project begun in late 1999. IDEM's portion of the project was to determine if a macroinvertebrate Index of Biotic Integrity (IBI) could be developed and calibrated for Indiana lakes and reservoirs. Staff continued to invest time, when available, to final processing and QC of macroinvertebrate samples in the laboratory, as well as with the data being input into the database. Final analysis of the macroinvertebrate data has yet to occur.

IDEM staff continued to support the efforts of ILMS through active participation on the Board, assistance in handling grant and other financial paperwork, manning the lakes display booth at the Indianapolis Boat Show and State Fair, promoting efforts such as the volunteer water monitoring video and lakes bioindicator project, and helping to coordinate and conduct the statewide spring lakes conference.

BSS staff also began working cooperatively with others to consolidate aquatic plant sampling and reporting techniques and to address issues regarding an exotic bluegreen algae which appeared in the state recently. Staff continue to cooperate with Agency efforts to develop nutrient criteria for the State. Staff also invested much time and energy into making designated use support decisions in EPA's 305(b) Assessment Database using data external to the program. Similar efforts were put forth to beef up and broaden lake information included in the Indiana State of the Environment Report.

Groundwater Program

The goal of the Ground Water Section is to ensure the protection of Indiana's ground water resource. To achieve this goal, several initiatives have been undertaken by the Section to characterize and regulate the quality of ground water in Indiana. This includes response to complaints of known or suspected incidents of ground water contamination, investigation and characterization of ground water quality in impacted drainage basins, the development and implementation of Indiana's wellhead protection program and the development, and adoption of Ground Water Quality Standards.

Citizen Complaints: The Ground Water Section has responded to more that 50 incidents of known or suspected contamination of ground water within the last year. The ground water section has found that the most serious problems with nonpoint sources of contamination are associated with the use and misuse of nutrients and pesticides. This includes the release of nitrates through land application, the application of fertilizers, and confined feeding operations.

Brine Water Intrusion Investigation: Fresh water aquifer evaluation was conducted in Posey County. The purpose of this evaluation is to characterize the inorganic chemical constituents of both the fresh water aquifers and oil well associated brines at the Mount Vernon Consolidated Oil Field, the Caborn West Oil Field and the Caborn Consolidated Oil Field in Posey County. Both locations have experienced brine water contamination of residential water wells. Fresh water aquifer contamination by oil and gas recovery activities is increasingly becoming a problem in SW Indiana. Brines are commonly associated with oil and gas accumulations in sedimentary basins, and they constitute an unwanted byproduct of oil and gas recovery. Although the brines typically lie far below the zone

of potable water, drilling for oil and gas creates the potential for contamination of aquifers both by upward leakage of brines due to improperly cased, piped and plugged wells and by improper brine water disposal methods. In the past, specific contamination sources were not identified or proven. The emphasis of this evaluation will be placed on identification of chemical constituents and constituent ratios that may be used for identifying "finger printing" the brine water's source formation. Ultimately, it is anticipated that by chemically finger printing individual oil wells, oil fields and fresh water aquifers in Posey County, it may be possible to identify offending oil wells or injection wells which are sources for brine water contamination of fresh water aquifers.

St. Joseph River Basin Aquifer Characterization: The St. Joseph River Basin is a hydrogeologically sensitive area known for contamination by agricultural chemicals and has been identified as class I - in need of restoration in the Unified Watershed Assessment for Indiana. Due to budget constraints, the sampling of the St. Joseph Basin has been scaled back. Approximately 100 samples have been collected. The isotope information from these samples and geochemical modeling techniques will be used to identify which areas and hydrogeologic settings are in particular need of protection or restoration. Because of the reduced sample number, the scope of the project has changed. Rather than determining surface water/ground water interactions, a vulnerability assessment will be performed. This will be accomplished by matching tritium and nitrate data to the hydrogeologic setting and will likely involve using nonparametric statistics to define the vulnerability. This approach will allow the state to promote the environmentally safe use of nutrients and pesticides which might otherwise adversely affect the quality of ground water and surface water resources.

Indiana's Wellhead Protection Program: Wellhead protection is a proactive approach for communities to protect their drinking water supplies. In Indiana, the development of a wellhead protection program is required by rule for community public water supply systems. Indiana's wellhead protection rule, promulgated in 1997, has provided a Phase 1 and 2 schedule for wellhead protection plan submittal based on the population of the community water system. All Phase 1 submittals were due by March 2002 and as of June 2002, 504 Phase 1 submittals had been received. The submitted wellhead protection plans provide information on community public water system wells and help local communities protect their water supplies by the identification of both point and nonpoint potential sources of contamination such as underground tanks or pesticide and fertilizer use. Wellhead protection plans are a tool in identifying ways to manage these potential sources of contaminants in conjunction with the use of best management practices. IDEM reviews each wellhead protection (WHP) plan submitted to ensure it complies with rules requirements and provides adequate protection to community public water supply wells. With added resources, IDEM continues to progress on completing reviews. To-date, 73 WHP plans have been approved, and 285 have been reviewed, but need revisions before they can be approved.

Ground Water Quality Standards: The recent establishment of ground water quality standards provides a baseline for use to: (1) ensure both point and nonpoint source permitted discharges to ground water are protective of human health and the environment and (2) determine when constituent concentrations in ground water, which may result from nonpoint sources, are at levels that are not protective of human health and the environment. The standards provide a tool to identify where and when protection efforts should be focused. Indiana's Water Pollution Control Board adopted Indiana's Ground Water Quality Standards (GWQS) on August 8, 2001, and the rule became effective March 6, 2002. A process for implementation of the GWQS was discussed with the Governor's Ground Water Task Force (GWTF), and action items were defined. IDEM's Office of Water Quality and Office of Land Quality are working in partnership to finalize this implementation process for IDEM. Currently, these two offices periodically review the agency rulemaking schedules to identify rules being developed that may need to incorporate the GWQS. IDEM also provides input to the Indiana Department of Natural Resources and the Indiana State Department of Health as they incorporate the GWQS into their rules. Additionally, IDEM is working with the GWTF to update the Indiana's Ground Water Protection and Management Strategy to help prioritize future ground water protection and management activities.

Total Maximum Daily Loads (TMDLs)

This program is located in the Environmental Toxicology, Chemistry and TMDL Section in the Assessment Branch of the Office of Water Quality.

On the Indiana 1998 303(d) List of Impaired Waterbodies, IDEM identified 208 waterbodies that do not meet the surface water quality standards for designated uses. Under the Federal Clean Water Act (CWA) Section 303(d),

development of TMDLs is required by U.S. EPA for all the impaired waterbodies that do not meet the WQS for the designated uses of protection of aquatic life, wildlife and human health. The draft 2002 303(d) list, as compared to the 1998 list, has been expanded into approximately 485 waterbodies for which IDEM will be required to develop the TMDLs. In 2002, IDEM adopted a consolidated listing methodology as outlined in the 2002 U.S. EPA "Integrated Water Quality Monitoring and Assessment Report Guidance". According to this methodology, each waterbody is placed in one of five categories depending on the degree to which it supports designated uses. Based on this methodology and review of public comments, the number of waterbodies on the 303(d) list may be changed and some waterbodies shifted to other categories. These lists may be viewed at http://www.IN.gov/idem/water/planbr/wqs/303d.html.

The water quality assessment for the 303(d) list come from evaluation of data obtained from chemical (water, sediment and fish tissue), physical (habitat evaluation and flow data) and biological (fish tissue, macro-invertebrates and *E. coli*) monitoring of Indiana rivers, streams and lakes. The greatest number of impairments listed on the draft 2002 (d) list are due to *E. coli* (214), Fish Consumption Advisories (210) and Impaired Biotic Communities (185). Most of these waterbody impairments, especially those due to *E. coli* and Impaired Biotic Communities, and to some extent the Fish Consumption Advisories are not effected by municipalities or combined sewer overflows, but are considered to be from nonpoint sources.

In May 1998, IDEM started implementation of Section 303(d) of the CWA, and undertook TMDL work on a number of waterbodies. IDEM first started TMDL development cooperatively with the U.S. Army Corps of Engineers (U.S. ACOE) in the Grand Calumet River and Indiana Harbor Canal in the Great Lakes basin. From 1998 through 2002, IDEM has worked on sampling and collecting data from 60 plus waterbodies in the Lower and Upper Wabash River Basins, Great Lakes/Ohio River Basin, and the East Fork & West Fork of White River Basins for developing a number of TMDLs. In 2001 and 2002, the TMDL program assessed watersheds in the West and East Fork of White River basins. Laboratory support for this TMDL program comes from Indiana State Department of Health (ISDH), U. S. Geological Survey, IDEM private contractors, IDEM's own in-house *E. coli* laboratory and an onsite *E. coli* Mobile laboratory. Throughout the process of TMDL development, identification of stakeholders, public participation and outreach activities are implemented.

In April 1999, an internal TMDL Coordinating Group was formed to coordinate the activities related to development of TMDLs. This group is co-chaired by the Assessment Branch Chief and the Planning & Restoration Branch Chief. The TMDL Coordinating Group has held monthly meetings ever since. In the past, the group met with America's Clean Water Foundation on two separate occasions to gain insight from the Foundation's experience with other states. Additional information on IDEM's TMDL program is available on the Internet at http://www.IN.gov/idem/water/assessbr/tmdl/index.html.

In October 2000, an external TMDL Advisory group was established by Senate Enrolled Act 431 to advise IDEM and the Water Pollution Board on identification of issues, the development of policy options, policy adoption, and rulemaking regarding the requirements of the Total Maximum Daily Load (TMDL) program. The rulemaking as per SEA 431, is related to the listing and delisting process of impaired waterbodies for TMDLs. The TMDL Advisory Group is a working group of stakeholders as defined by the requirements of SEA 431. From October 2000 until recently, this group met almost every month, and in October 2001 came up with draft recommendations concerning Listing and De-Listing of the impaired waterbodies on the 303(d) list. The schedule of this group has now changed, and the group meets every quarter on an as needed basis.

During the past year the Watershed Management Section and the TMDL Program have worked together in facilitating the integration of watershed management planning and implementation with the development of TMDLs and their implementation. The Watershed Management Section participates in the internal TMDL Coordinating Group, and staff from both programs have interacted with stakeholders in the watersheds of major river basins to carry out water quality planning and management activities. This include a wide range of activities, including, but not limited to, assessment of water quality in a watershed, development of alternate approaches to control nonpoint pollution and implementation and enforcement of control measures.

Additionally, the Watershed Management Section has worked with the TMDL program and awarded two 104(b)(3) federal grants for contracting out *E. coli* TMDLs in the Fall Creek/Pleasant Run and Trail Creek watersheds. Also six 319 grants were recently awarded to contract out for *E. coli* TMDLs. A few other TMDLs are also underway

through contracts. The schedule for specific TMDLs may be found in the Environmental Performance Partnership Agreement (EnPPA).

Surface Water Quality Monitoring Strategy

The purpose of the Office of Water Quality's Surface Water Quality Monitoring Strategy is to direct the assessment of the quality of surface waters of Indiana's rivers, streams, and lakes for designated water uses. The strategy is designed to provide technical data and information in support of the biennial 305(b) Water Quality Report, National Pollutant Discharge Elimination System (NPDES) permitting program, and the annual Fish Consumption Advisory. In addition, the implemented strategy provides water quality information to identify activities responsible for impairment, analyze water quality trends, and develop environmental indicators. The Office of Water Quality's (OWQ) field sampling strategy is designed to describe the overall environmental quality of each major river basin and to identify what parts of the river basins are impaired or do not meet water quality standards. Elements of the sampling program include: fixed station monitoring; sampling from statistically selected sites; fish community, fish tissue, and sediment contaminant sampling programs; pesticide monitoring; bacteriological *(E. coli)* sampling; macroinvertebrate sampling; site specific sampling in support of NPDES permitting program; and special projects such as trace metals and Total Maximum Daily Loads (TMDL) sampling.

The water quality data is collected, analyzed, and assessed with information published in multiple formats to be used by a variety of customers. OWQ's internal program support activities include: 305(b) Water Quality Report; 303(d) Impaired Water Bodies List; TMDL determinations; and NPDES permits. External uses of monitoring data and information include: the annual Fish Consumption Advisory; the IDEM-U.S. EPA Environmental Performance Partnership Agreement; the Northwest Indiana Remedial Action Plan; the Watershed Restoration Action Strategies for Indiana, IDEM's State of the Environment Report, and U.S. EPA Region 5's State of the Waters Report. Access to collected data and information is provided to the public upon request and via the Internet.

The Water Quality Monitoring Strategy for 2001-2005 is available on the Internet at http://www.IN.gov/idem/water/assessbr/swqms2001findoc.pdf. Budget constraints have reduced or postponed some assessments, including those in the following areas: macroinvertebrate community monitoring and assessment, water quality trend analysis, environmental indicator development, and water quality use impairment source identification.

Working Toward the Watershed Approach

IDEM's Office of Water Quality has been working on moving towards an Office-wide watershed approach. This approach relies heavily on the creation of six new positions, titled Basin Coordinators. These positions would expand on the success of the Regional Watershed Conservationists, but move to a more holistic approach integrating both point and nonpoint issues and serving as a liaison both between local communities and IDEM as well as between programs within IDEM for a given geographic area. Due to the current state budget situation where the state is experiencing revenue shortfalls, the creation of these positions will be dependent on future state revenues.

In addition to the Watershed Approach, IDEM's Office of Water Quality has contracted with a consultant to work on updating IDEM's Continuous Planning Process (CPP) as required in Section 303(e) of the Clean Water Act. The funding for this project is provided through 205(j) grant funds.

Indiana Department of Natural Resources Program Highlights

Division of Soil Conservation

The Division aims to ensure the protection, wise use and enhancement of Indiana's soil and water resources by coordinating implementation of the state's Clean Water Indiana soil conservation/water quality protection program and providing assistance to local soil and water conservation districts.

In July 2002, the State Soil Conservation Board awarded $1,208,852 of **Lake and River Enhancement** and Land and Water Conservation funds as grants to protect the water quality of Indiana lakes and streams and to reduce soil erosion. The 36 grants will benefit citizens and resources in 33 counties throughout the state. The projects funded by the grants will help restore not only natural beauty but also ecosystems. That will result in improved boating, fishing, and other recreation. The grants continue a 14-year state effort to provide technical and financial assistance to local units of government and organizations to solve erosion and nutrient-related problems affecting public access lakes and streams. The funded projects will improve water quality through the installation of grass cover, filter strips and structures to reduce sedimentation and nutrient runoff. Some will result in the production of scientific studies that document water-related problems and solutions. The grants bring to 266 the number of projects that have been assisted since 1988 by the LARE program. Those projects have enhanced 148 lakes and streams and 73 watersheds in 55 counties.

Using Section 319 funds, the Division has continued a contract with D. J. Case, J. F. New, and Goshen College to implement the **Adopt-A-Wetland program** that was originated by IDEM and the Wetlands Project of the Sierra Club. The program focuses on outreach and education about wetlands, as well as expanding wetland monitoring and management in the state. The contract allows for further development of a training manual, presentation of training workshops for citizens, and general dissemination of wetlands information.

The Division employs eight regional Storm water Specialists as part of the **Stormwater and Sediment Control Program**. Each of these staff members area assigned to a multi-county area. Their primary responsibilities are to focus on urban related resource issues. Some of their responsibilities include implementation of 327 IAC 15-5 (erosion and sediment control associated with construction activities), Departmental permit review, and working as advisors to local units of government to develop programs and address water quality concerns. Staff works very closely with local Soil and Water Conservation Districts in their day to day activities.

As stated earlier, one of the primary responsibilities under this program is to assist the IDEM with the implementation of 327 IAC 15-5. The Stormwater Specialists, in conjunction with Division Resource Specialists (County based) and Soil and Water Conservation District employees, are responsible for field implementation of the program. Activities include plan review, site inspection, documentation of violations, issuance of compliance letters, and making referrals to the IDEM for enforcement action. The regional staff are also responsible for training and quality control within their assigned regions. This past year staff has been assisting IDEM in developing the new Phase II stormwater rules recommending strategies for implementation of Phase II.

The Division employs 42 county based **Resource Specialists**. These staff work locally with Soil and Water Conservation Districts and work on a variety of programs. They are not only involved with implementing Division programs, such as Lake and River Enhancement and Stormwater and Sediment Control Program activities, but they also assist and provide technical expertise on a variety of Natural Resources Conservation Service programs and locally driven Soil and Water Conservation District programs and activities.

The **Hoosier Riverwatch** program, Indiana's volunteer stream monitoring and streambank cleanup program, strives to reduce nonpoint source pollution by increasing public education, involvement, and stewardship of Indiana's waterways. The following accomplishments highlight the impact of this program:

- Volunteer Stream Monitoring Training Workshops - Hoosier Riverwatch teaches adult educators and volunteers about watersheds, point and nonpoint pollution sources, and pollution reduction methods by means of 6-7 hour training workshops held throughout the state. In addition, participants learn to assess habitat, chemical, and biological conditions in streams and rivers using standardized protocols and data sheets. In the last year, forty-six (46) Level 1 and 2 workshops were held, and 535 participants were trained. We reached another 500 students and adults through water quality presentations held at their request.

- Volunteer Instructors - With funding assistance from 104(b)(3) and 319 grant programs, we developed a Volunteer Instructor Training Program in 2001. We have held three Level 3 training workshops and trained seventeen Volunteer Water Monitoring Instructors. These Volunteer Instructors perform Level 1and 2 training workshops and act as local contacts for other volunteers. Volunteer Instructors conducted twenty workshops in

2001/2002, and trained 144 participants (27% of the total number trained during that time period). They are a tremendous asset to our volunteer stream monitoring training and testing efforts.

- Equipment Grants - Riverwatch provided 51 water monitoring equipment grants to schools, nonprofit organizations, and governmental agencies this year. Grant recipients form the foundation of our volunteer monitoring program. They must attend training, and they are required to monitor at least four times per year for two years.

- Year of Clean Water / National Water Monitoring Day - As Indiana's primary contact for this national event, we are promoting volunteer and professional monitoring on October 18. We see this event an as excellent opportunity to increase public awareness and involvement in water quality issues. In addition, a Hoosier Riverwatch teacher and her students were selected to represent Indiana at the National Youth Environmental Summit in Maryland.

- Protecting Our Watersheds - Riverwatch staff were trained at a national Rivers Institute to provide workshops in this excellent and exciting new action guide. The Protecting Our Watersheds guide (developed by Earth Force/GREEN) helps participants through the process of analyzing their water quality data and taking action to protect or cleanup a problem with their local river or watershed. Although the program was developed for students, we have found it to be a very useable tool for watershed groups, as well.

- Healthy Water Healthy People (HWHP) - Riverwatch staff participated in the development of a new national curriculum for water monitoring. The curriculum supplement will include hands-on K-12 activities as well as water monitoring kits for different age levels and water sources (e.g., surface water, groundwater, drinking water, and storm water). The first HWHP training in the country is being coordinated by Indiana Project WET, and will be held at the Natural Resources Education Center. Many Riverwatch Volunteer Instructors will be among the first trained. This program is an excellent complement for educators using Hoosier Riverwatch in their classrooms.

- On-line Database for Volunteer Data - The rewards of our online database (www.HoosierRiverwatch.com) have been tremendous. Volunteer stream monitors are very excited to see their data in the easily accessible statewide database, and we believe this helps motivate the volunteers to perform their stream monitoring!
  Registered Sites 365 (75% have lat/long data)
  Registered Users 190 (78% are grant recipients)
  # Data sheets submitted 2717

  In addition, development of the database has opened communications between Hoosier Riverwatch and the IDEM on potential uses of the volunteer stream monitoring data for assessments. We have also spoken with the TMDL Advisory Committee about the data and our network of committed citizen volunteers.

- Adopt-A-River Cleanup Program - Hoosier Riverwatch also coordinates a streambank cleanup program called Adopt-A-River. This program provides a Cleanup Manual as well as recognition signs (placed along roadways) for adopting groups. Participating groups must cleanup their adopted segments at least twice a year and are encouraged to publicize their events throughout their communities. During this period, seven new groups were accepted into the program. Riverwatch partnered with Friends of the White River to obtain funds from the White River fish kill settlement from Guide Corporation. Through this partnership we will conduct a public awareness campaign, promote river cleanups, and obtain new program participants on this section on the White River

- Storm Drain Marking - Hoosier Riverwatch is working in cooperation with Indiana Project WET and Clean Water Indiana to develop a storm drain marking program through Section 319 funding to be used by local groups (e.g. schools, youth groups, environmental groups) throughout the state. We hope to develop a "how to" guide, example letters, promotional materials, and discounted buttons or stencils. We are also working with IDEM to provide this information to municipalities who will soon be required to include public involvement activities in their NPDES Phase II permits.

- Partnerships/Case Studies - In addition to our regular training workshops, we have worked with students through the statewide Envirothon competition and the Arrowhead RC&D River Rafting Expedition. We have

reached more than 5,500 attendees through exhibits at events aimed at science teachers, families, neighborhood associations, canoeists, lake residents, students, service groups, and communities.

- There have also been successes with volunteers working with NPS polluters at their local level. Lake associations are testing golf course runoff and sewer discharges, some groups are working with foundations and conservancies to purchase and protect wetlands, while others are obtaining grants for installation of best management practices, and are talking with their neighbors about how their own actions impact water quality.

The **Clean Water Indiana** initiative focuses state resources to reduce water pollution from agricultural and urban stormwater runoff; improves land management within watersheds to improve water quality, while sustaining productivity; utilizes technical and financial resources to assess natural resource conditions and implement the appropriate conservation measures; and supports local assessment and prioritization of natural resources. The 2001 general assembly appropriated $2 million dollars for this program for the 2001-2002 biennium. With these funds local Soil and Water Conservation Districts have developed local cost share programs, purchased conservation equipment, and provided technical staff to address the needs of land owners. The program is administered by the Division of Soil Conservation and the State Soil Conservation Board of the Department of Natural Resources.

The **Conservation District program** is administered cooperatively between Purdue University Cooperation Extension Service and the Division of Soil Conservation of DNR. The Conservation Program Specialists assist with outreach, education, and technical assistance on non-point source issues. One of their biggest functions is assisting SWCDs with educational and administrative support. The group coordinates the Cropland Transect program, the Farming to the MAX program, organizes the Pathway to Water Quality exhibit at the state Fair, provides training through state soil conservation and water quality workshops, and conducts local and state educational tours.

CZARA

Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) Section 6217: Coastal Polluted Runoff Program

The Indiana Department of Natural Resources is the lead agency to implement the State's Coastal Management Program, the Lake Michigan Coastal Program, and for developing the Coastal Polluted Runoff Program under CZARA.

In August 2002, Indiana received approval for the Lake Michigan Coastal Program from the Coastal Zone Management (CZM) Program. Federal and state program approval was the culmination of an extensive public participation and review process conducted during 2001-2002.

In September 2001, the Draft Environmental Impact Statement (EIS) for the Lake Michigan Coastal Program was released. Three public hearings were held in October to allow the public to comment on the Draft EIS. Over 55 people attended the public hearings and 60 comments were received. Public comments were predominately supportive of the Lake Michigan Coastal Program. Comments on the Draft EIS were reviewed for incorporation into the Lake Michigan Coastal Program and compiled into the Final EIS, which was released in June 2002. The National Oceanic and Atmospheric Administration released its decision to approve the Lake Michigan Coastal Program under the Coastal Zone Management Act on August 12, 2002.

The Lake Michigan Coastal Program also initiated planning to complete development of the Coastal Polluted Runoff Program under CZARA Section 6217 in 2002. A workgroup was formed to complete the Coastal Polluted Runoff Program within 30 months from the date of CZM approval. The workgroup consists of representatives from the Lake Michigan Coastal Program, Purdue University Cooperative Extension, and the Indiana Department of Environmental Management. In April 2002, representatives from the workgroup attended the National Coastal Nonpoint Source Pollution Workshop in Leesburg, Virginia. This conference provided an opportunity to meet with representatives from the U.S. Environmental Protection Agency and National Oceanic and Atmospheric Administration concerning steps to achieve approval in Indiana. The conference also provided important information on current requirements and innovative approaches from other coastal states.

In addition to initial planning, the Coastal Polluted Runoff Program workgroup completed educational materials about nonpoint source pollution and the development of this new program in Indiana. The materials include: fact-

sheets on "Nonpoint Source Pollution", "Protecting Indiana's Coastal Waters", "Agricultural Conservation", "Urban Conservation", "Wetland Conservation", and "Clean Marinas"; a brochure also entitled "Protecting Indiana's Coastal Waters"; and a bookmark celebrating the importance of Indiana's coastal region.

The Lake Michigan Coastal Program also worked with the Indiana Department of Environmental Management's Section 319 program to initiate a contract to develop the monitoring plan needed for the Coastal Polluted Runoff Program. The contract will be completed in 2003 and will provide baseline water quality data and an overall approach to demonstrate progress in addressing coastal nonpoint source pollution.

Natural Resources Conservation Service Program Highlights

The Natural Resources Conservation Service (NRCS-USDA) assists private landowners and local governments in caring for land, water, wildlife, woodlands, and wetlands. During FY 2002, NRCS field staff assisted farmers to plan and install the following practices:

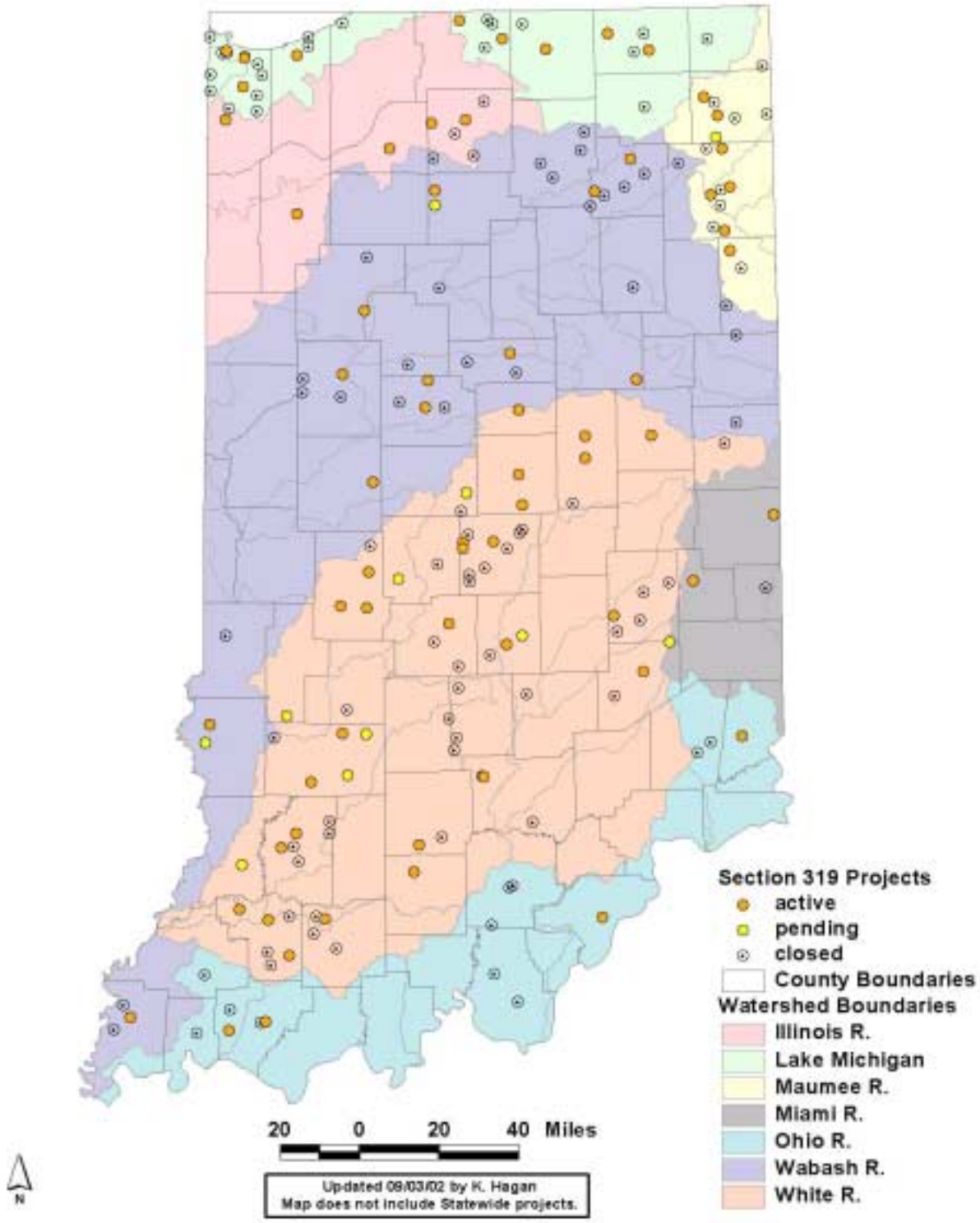
Conservation Services	Units	Amount
Group and area-wide plans	#	8
Buffers and related practices	Acres	17820
Erosion Reduction Practices	Acres	166,309
Inventory & Evaluation	#	2,044
Nutrient Management	Acres	101,422
Pest Management	Acres	79,360
Prescribed Grazing	Acres	8,492
Residue Management	Acres	144,461
Tree Planting	Acres	3,058
Waste Management Facilities	#	42
Wetland Restoration	Acres	3,654
Wildlife Habitat Enhancement	Acres	32,754
Conservation Systems Planned	Acres	346,318
Conservation Systems Applied	Acres	271,240

In spring 2002, field technicians, conservationists, and engineers joined in a 'Swat Team' approach to plan and design more than 4000 grassed waterways requested through the Conservation Reserve Program, which provides technical and financial assistance to agricultural landowners to establish easements on buffer areas near streams and lakes. Eligible practices include filter strips, buffers, forested riparian buffers, and grassed waterways. After the buffers are established, farmers receive rental payments each year for ten years in lieu of production lost from cropland entered into the program.

The advent of the 2002 Farm Bill in May required rethinking staff assignments and budget allocations in preparation for the largest conservation program in America's history. Under the new bill, NRCS will administer EQIP, WRP, FPP, and WHIP, while the FSA will administer CRP. The EQIP program allocated approximately $4 million to Indiana this year, and expectations are for about $7.5 million in 2003 and $10.5 million for each of the remaining four years of the Farm Bill. Demand is running high, with over $20 million in requests this year alone.

EQIP ranking criteria for 2003 will be based on four statewide concerns: Water Quality, Livestock Production, Soil Erosion, and Forest Management. Local workgroups will determine additional areas of concern within the statewide concerns. Criteria will include whether a tract is within a watershed impaired for non-point source pollutants, as identified on the 2002 303(d) List.

Appendix A: Geographic Location of Section 319 Projects (FFY 1990-2002)



APPENDIX B: List of Section 319 Projects

(Open Projects from 09/01/01 to 08/31/02; Summaries available in GRTS)

FFY Start	ARN End	Contractor	Project	Status		
1995						
	98-192	Purdue University	Ground Water Monitoring	Closed	9/8/99	11/7/01
1996						
	00-22	Town of Culver	Stormwater Treatment Systems	Closed	6/8/00	9/7/01
	00-23	Johnson County SWCD	Wastewater Wetland Demo Site	Closed	8/1/00	9/30/01
1997						
	00-28	Purdue University	Indian Pine Watershed Study	Cancelled	5/1/00	9/30/01
	00-47	Childrens Museum of Indianapolis	Great Scientific Adventure	Closed	10/2/00	10/1/01
	00-75	Purdue University	High Residue Corn Education & Outreach Effort	Open	9/1/00	8/31/02
	01-277-01	Indiana Department of Environmental Management	IDEM WRASs	Closed	10/31/01	10/30/02
1998						
	00-24	Maumee River Basin Commission	MRBC Voluntary Ag. Areas Land-Use Conv.	Closed	6/9/00	6/8/02
	98-175	Marion Community Schools	Suspended Stream Sediment	Open	1/1/99	12/31/02
	98-176	Indiana University	Spring Mill Lake	Open	7/1/98	6/30/02
	99-203	Nature Conservancy	Blue River Riparian Reforestation	Closed	9/16/99	9/15/01
	99-325	Clinton County SWCD	Water Quality Monitoring Educational Program	Closed	1/1/00	12/31/01
1999						
	00-95	Hoosier Heartland	Conservation Development Guide	Open	10/23/00	10/22/02
	00-96	Indiana Department of Natural Resources	Hoosier Riverwatch	Open	2/1/01	1/31/03
	98-101	Indiana Lakes Management Society	Indiana Lakes Education	Closed	4/1/00	3/31/02
	98-104	Decatur County SWCD	Public Information/Education Program	Closed	7/1/99	9/30/01
	98-99	Indiana University	Indiana Clean Lakes Program	Open	5/1/00	6/30/02

FFY	ARN	Contractor	Project	Status	Start	End
	99-206	Indiana University	Nitrate Study/Jackson County	Open	9/1/99	6/30/02
	99-208	U.S. Dept of Agriculture	Watershed Assesment of Potential Pesticide and	Open	11/1/99	10/31/01
	99-209	LaGrange County SWCD	WQ Improvement through Livestock Mgmt	Closed	9/16/99	9/15/01
	99-210	Sycamore Trails RC & D Council	Partners for Reclamation	Open	8/10/99	2/28/03
	99-211	Carroll County SWCD	Integrated Nutrient Management	Closed	9/12/99	9/11/01
	99-212	Putnam County SWCD	Upper Eel River Manure Management Project	Closed	9/16/99	9/15/01
	99-213	Indiana Department of Natural Resources	Lite on the Land -Implementing Logging BMPs	Closed	10/1/99	9/30/01
	99-214	Indiana Department of Natural Resources	One Million Trees for Cleaner Water	Closed	9/16/99	9/15/01
	99-217	Indiana Farm Bureau, Inc.	Statewide E. coli DNA Identification Database	Open	10/5/99	10/4/03
	99-218	Indiana Farm Bureau, Inc.	Fishery Study, Grant Coord., and Restoration Proj	Open	9/16/99	3/15/03
	99-219	Clinton County SWCD	Water Quality in Kilmore Creek & Stump Ditch	Closed	9/15/99	9/14/01
	99-220	City of Evansville	Pigeon Creek Bank Stabilization	Open	8/31/99	12/30/01
	99-221	Cedar Lake Enhancement Association	Cedar Lake Watershed Protection	Closed	8/11/99	8/10/02
	99-222	Allen County SWCD	St. Mary's Watershed Demonstration Project	Closed	8/11/99	2/10/02
	99-225	Four Rivers RC&D	Core-4 BMP Demonstration Phase I	Closed	11/5/99	11/4/01
	99-324	Four Rivers RC&D	Core-BMP Demonstration Phase II	Open	10/1/01	6/30/03
	99-326	Four Rivers RC&D	Nutrient Management Incentives Demonstration	Closed	4/1/00	3/31/02
	N/A	Indiana Department of Environmental Management	Statewide TMDL E. coli Van	Closed	2/1/02	8/31/02
	Nunca	Indiana Department of Environmental Management	Nonpoint Source Pollution Citizen Poster Series	Open	1/1/02	12/31/02
2000						
	00-101	Indiana Department of Natural Resources	Wetlands Outreach Coordinator	Open	10/1/00	9/30/02
	00-102	Four Rivers RC&D	Livestock Waste Management--Greene Co.	Open	10/1/00	9/30/02
	00-194	U.S. Dept of Agriculture	Comprehensive Nutrient Mgt. Plan Training	Open	4/24/01	3/23/03
	00-195	Sycamore Trails RC & D Council	Upper Eel River Manure Mgt. Proj.	Open	2/1/01	7/31/04
	00-198	Dearborn County SWCD	Tanner's Creek Watershed Mgt. Plan	Open	2/12/01	2/11/03

FFY	ARN	Contractor	Project	Status	Start	End
	00-199	Indiana Association of Soil and Water Conservation	Wildcat Creek Watershed Coord./Exec Dir	Open	7/1/01	6/30/03
	00-200	Coffee Creek Watershed Conservancy, Inc.	Coffee Creek Watershed Mgt. Plan	Open	3/1/01	2/28/03
	00-238	Adams County SWCD	St. Marys Nutrient Management Project	Open	6/1/01	10/31/02
	00-39	City of Plymouth	Yellow River Water Quality Improvement	Open	10/1/00	9/30/02
	00-78	Nature Conservancy	Kankakee Sands Restoration and Aquatic	Open	9/18/00	9/19/02
	00-79	Shipshewana Lake Community Improvement Association	Shipshewana Elementary School Constructed	Cancelled	10/1/00	9/30/02
	00-85	Four Rivers RC&D	South Fork Patoka Watershed Coordinator	Open	10/1/00	9/30/02
	00-86	Four Rivers RC&D	Watershed Restoration Coordinator	Open	7/1/01	6/30/03
	00-87	Arrowhead Country	Multi-County Septic Solutions Demos	Open	10/23/00	10/22/03
	00-88	Office of the Lake County Surveyor	Gatlin Prop. Pollution Control & Wetlands Rest.	Open	11/19/00	11/18/02
	00-89	Lincoln Hills RC & D	Nutrient Management Specialist	Open	12/11/00	12/10/02
	00-90	Indiana Department of Natural Resources	A Million Trees for a New Millenium	Open	11/1/00	9/30/02
	00-91	Four Rivers RC&D	Livestock Waste Management--Daviess Co.	Open	10/1/00	9/30/02
	00-92	St. Joseph County	Reduction of Erosion of Streambanks on Juday	Open	10/1/00	9/30/02
	00-93	Huntington County	NPS Pollution Assessment	Closed	10/1/00	9/30/01
	00-94	Howard County Health Department	Fluorometric Detection of Wastewter	Open	10/1/00	9/30/02
	00-97	U.S. Dept of Agriculture	NRCS Liaison--Susan McLoud	Open	7/15/00	5/5/02
	00-99	City of Hobart	Comprehensive Watershed Mgmt.--Turkey Creek	Closed	1/1/01	6/30/02
	01-271-01	Indiana Department of Environmental Management	A Study of Indicators of Nonpoint Source Pollution	Open	11/21/01	11/20/03
	02-492	Indiana Department of Environmental Management	Grand Cal TMDL	Pending	6/1/02	5/31/03
	99-379	Sullivan County SWCD	Wabash River Expedition	Open	10/1/00	3/30/03
	99-380	Metropolitan School District of Lawrence Township	Indian Creek Watershed Alliance	Closed	7/1/00	6/30/02
	99-381	The Nature Conservancy	Tippecanoe River Watershed Project	Open	7/1/00	6/30/02
	99-382	Purdue University	Farm Show 2001	Closed	9/1/00	4/30/02
	99-383	St. Joseph River Watershed Initiative	Public Outreach Project	Open	8/1/00	7/31/02

FFY	ARN	Contractor	Project	Status	Start	End
	99-384	Indiana Association of Soil and Water Conservation	Engaging the Public in Watershed Protection	Open	11/1/00	10/31/02
	99-385	Purdue University	Planning with Power	Open	7/1/00	6/30/02
	99-387	Dekalb County SWCD	Septic Cost-Share	Closed	5/1/00	4/30/02
	99-388	Marion County SWCD	Bank Stabilization Project on Trittipo Ditch	Closed	7/1/00	6/30/02
	99-389	Adams County	St. Marys Watershed Nutrient and Manure	Cancelled	8/1/00	12/31/01
	99-390	Hammond Parks and Recreation Dept.	Wolf Lake Conservation Area	Open	6/1/00	8/31/03
	99-391	Four Rivers RC&D	Lower White River Technical Assistance	Open	7/1/00	6/30/02
	No	Indiana Department of Environmental Management	Watershed Training Scholarships	Open	10/1/99	9/30/05
2001						
	00-204	Lake County Solid Waste Management District	Aquaculture Demonstration Proj.	Open	7/19/01	7/18/03
	00-205	Pheasants Forever	Vegetative Restoration Water Quality Project	Open	10/1/01	9/30/03
	00-206	Delaware Co. SWCD	White River Watershed - Delaware Co.	Open	7/1/01	6/30/04
	00-208	Taylor University	Land Use & Sediment Load Mississinewa	Open	7/18/01	11/17/03
	00-209	Town of South Whitley	Soil Bioengineering Project	Open	10/1/01	9/30/02
	00-210	Arrow Head Country RC&D	Lake Freeman Water Quality Improvement	Open	7/1/01	6/30/03
	00-211	Poor Handmaidens of Jesus Christ	Lake Gilbraith & Flat Lake Watershed	Open	7/30/01	7/29/03
	00-212	Fayette Co. SWCD	Lick and Garrison Creek WMP and Assessment	Open	6/2/01	9/1/03
	00-214	Four Rivers RC&D	Animal Waste Management Specialist - Dubois &	Open	7/3/01	7/2/04
	00-216	Morgan Co. SWCD	White River Watershed Mgt. Initiative - Morgan	Open	5/10/01	5/9/03
	00-218	Tipton Co. SWCD	Watershed Management Coordinator - Tipton Co.	Open	6/1/01	5/31/03
	00-219	Crooked Lake Association, Inc.	Crooked Lake Sediment & Nutrient Retention	Open	6/1/01	11/30/02
	00-220	Pike County SWCD	Land Treatment on Lower White River	Open	7/1/01	6/30/03
	00-221	Posey County SWCD	Pitcher Lake Watershed Proj. Phase I	Open	6/21/01	6/20/03
	00-222	Decatur County SWCD	Sand Creek Watershed Project	Open	10/1/01	9/30/03
	00-223	Rush County SWCD	Conns Creek Subwatershed	Open	6/21/01	6/20/03

FFY	ARN	Contractor	Project	Status	Start	End
	00-224	Johnson County SWCD	Youngs Creek Watershed Assessment Program	Open	9/1/01	10/31/03
	00-225	Purdue University	Farm & Home Assessment for Water Quality	Open	6/4/01	6/3/04
	00-226	Indiana Department of Natural Resources	Erosion & Sediment Control Principles, Plans &	Open	7/1/01	6/30/03
	00-227	Indiana Department of Natural Resources	Stormwater Principles & Practices Manual	Open	7/1/01	6/30/03
	01-249	Hoosier Heartland	Riparian Area Buffer Strip Tree Planting Project	Open	7/1/01	6/30/03
	01-250	Tippecanoe County SWCD	Water Quality Education Project	Open	7/1/01	6/30/03
	01-251	Sycamore Trails RC & D Council	Big Walnut and Deer Creek Conservation Buffer	Open	7/1/01	6/30/03
	01-252	MACOG	Landuse Changes and NPS Pollution Prevention	Open	7/1/01	6/30/03
	01-253	Four Rivers RC&D	Prioritizing the Remediation of Orphaned Brine	Open	7/1/01	6/30/03
	01-254	Elkhart County SWCD	Problematic Domestic Waste Disposal Systems	Open	7/16/01	7/15/03
	01-255	City of Anderson	Public Information & Education Program	Open	7/1/01	12/31/02
	01-256	Clinton County SWCD	Waste Utilization with Integrated Nutrient	Open	7/1/01	6/30/03
	01-322	Indiana Department of Environmental Management	NRCS RWC - Andy	Open	7/1/01	6/30/03
	01-323	Indiana Department of Environmental Management	NRCS RWC - Matt	Open	7/1/01	6/30/03
	01-324	Indiana Department of Environmental Management	NRCS RWC - Jim	Open	7/1/01	6/30/03
	01-393	LaGrange County SWCD	WQ Improvement through Livestock Management	Open	1/1/02	6/30/04
	01-394	Hoosier Chapter SWCS	NPS Info & Ed 2002 SWCS Meeting	Open	1/14/02	1/13/03
	01-440	Green Mountain Institute for Env. Democracy	Using Watershed Planning Tools for TMDLs	Open	2/1/02	1/31/03
	01-447	Indiana Department of Natural Resources	IN Storm Drain Marking How to Guide & Video	Open	7/1/02	6/30/04
	02-449	Indiana Department of Environmental Management	Indiana Lakes Program	Open	5/1/02	6/30/05
	no contract	Indiana Department of Environmental Management	Ground Water Monitoring Program	Closed	10/1/00	9/30/01
2002						
	01-377	Clark County SWCD	Urban NPS Ed Program - Silver-Little KY	Open	7/1/02	6/30/04
	01-378	Wayne County SWCD	Middle Fork Watershed Project	Pending	7/1/02	6/30/04
	01-379	Madison County SWCD	Alternative Septic System Ed Program - Upper	Pending	7/1/02	6/30/04

FFY	ARN	Contractor	Project	Status	Start	End
	01-380	U.S. Dept of Agriculture	Conservation Tillage Coordinator	Pending	6/1/02	5/31/04
	01-381	U.S. Dept of Agriculture	BMP Handbook	Pending	6/1/02	5/31/04
	01-382	Indiana Lakes Management Society	Develop Env. Indicators for Southern IN Lakes	Open	6/1/02	6/30/04
	01-383	St. Joseph River Watershed Initiative	St. Joseph River Watershed Ed/Cedar Creek WMP	Open	7/1/02	12/31/04
	01-385	Indiana University	Indiana Water Quality Atlas: Internet Mapping	Pending	6/1/02	5/31/05
	01-386	Allen County SWCD	St. Marys Sediment, Nutrient & Nutrient Reduction	Open	7/1/02	12/31/05
	01-387	Indiana University	Eval of Riparian Buffer Zones Using GIS	Pending	7/1/02	6/30/04
	01-388	The Council of State Governments	Working at a Watershed Level Training Course	Pending	7/1/02	6/30/04
	01-389	Montgomery County SWCD	Little Sugar Creek Watershed Project	Open	7/1/02	6/30/04
	01-390	Indiana University	Analysis of Nitrate in Ground Water in Jackson Co.	Open	7/1/02	6/30/03
	01-391	U. S. Geological Survey	Nutrient Impact on Fish & Invertebrate	Pending	4/1/02	9/30/03
	01-392	Hamilton County SWCD	Cost-Share for Alternative Septic Systems/Ed Prog.	Pending	4/1/02	3/31/04
	02-499	Indiana Department of Environmental Management	NRCS Liaison (Susan)	Open	5/6/02	5/5/04
	Blank	Indiana Department of Environmental Management	Dev & Impl of IN Pest Mgt. Plan	Open	10/1/01	3/31/03
	Nope	Indiana Department of Environmental Management	Lk Michigan Basin E. Coli NPS Implementation	Cancelled	6/15/02	10/1/02

APPENDIX C: Reported Load Reductions for all Section 319 Projects – To Date

Project ARN	HUC	Sediment Reduction (ton/yr)	Phosphorus Reduction (lbs/yr)	Nitrogen Reduction (lbs/yr)
00-220	05120209	30	31	62
00-222	05120206	6122	6289	12578
00-86	05140202	437	437	873
99-207	05120201	464	503	1005
99-209	04050001	75	86	174
99-216	05120107	596	625	1244
99-219	05120107	1720	2153	4302
99-222	04100004	11235	13606	27202
99-223	05140202	163	226	436
99-225	05120202	377	415	831
99-324	05120201,05120202	81	81	161
	Totals	21,300	24,452	48,868

*Load reductions estimated using the *BMP Load Reduction Estimating Workbook* which may be found at http://www.IN.gov/idem/water/planbr/wsm/index.html. Please note that the Indiana Load Reduction Workbook estimates load reductions for structural and agricultural field practices. Therefore, reductions achieved through practices related to nutrient, bacteriological, and pesticide management are not captured through this estimation method.

APPENDIX D: Administrative Goals of the NPS Pollution Management Plan for Indiana

NPS Program Goals 2002

Administrative Goals of the Indiana NPS Program: Target 2004		
1	***Annually update and publicize the Unified Watershed Assessment (UWA). Incorporate the Assessment into nonpoint source and other programs.***	
	GOAL: Submit UWA amendments for pending FFY to U.S. EPA prior to October 1st; disseminate to partners and the public by November 1st; incorporate UWA in Section 319 grants program as per U.S. EPA guidance. EPA no longer requires this, but IDEM is in the process of completing the UWA amendments.	**FY 2002 ACTIONS:** Updated to 11-digit level for 13 parameters, published on CD in spring of 2000. Submitted 2000 update to EPA February 2000. Disseminated on request to partners and the public as CD; some parameters may be added. A review of data included in the UWA was planned for Spring 2001, but decided to update data when new 303d list comes out. We are still waiting on the new 303d list. ***Ongoing***
2	***Develop and implement Watershed Restoration Action Strategies (WRASs) in partnership with other agencies (IDEM is the lead agency.)***	
	GOAL: WRASs are submitted to U.S. EPA for each of the targeted hydrologic units.	**FY 2002 ACTIONS:** All 32 WRASs have been developed. The original 15 completed WRASs targeting the initial UWA priority areas were: Middle-Ohio Laughery; Highland-Pigeon; Wildcat; Patoka; Eel-Big Walnut; Upper White; Lower White; St Mary's; St Joseph-Lake Michigan; Kankakee; Iroquois; Flatrock-Haw Creek; Driftwood River; Tippecanoe; and Mississinewa. IDEM contracted out for the remaining 17, 8 digit areas and they have all been completed. These areas are: St. Joseph-Maumee; Little Calumet-Galien; Sugar; Whitewater; Eel-Wabash; Upper Wabash; Salamonie; Middle Wabash-Deer; Middle Wabash Little-Vermillion; Middle Wabash-Busseron; Lower Wabash; Lower Ohio-Little Pigeon; Blue-Sinking; Silver-Little Kentucky; Lower East Fork White; Muscatatuck; and Upper East Fork White. In addition local watershed management plans are under development in the St Joseph River (Maumee), South Fork Patoka, Pitcher Lake-Lower Wabash, Sand Creek-Decatur County, Eagle Creek-Upper White, Pigeon Creek-Vanderburgh County, Tanner's Creek-Dearborn County, Youngs Creek-Johnson County, Conns Creek-Flat Rock, and White Lick-Morgan county, with the assistance of S319 grants. It is our intention to fund the implementation of local watershed management plans through S319 whenever feasible. ***100% complete.***
3	***Manage the Section 319 grants program effectively.***	
	GOAL: Grants are allocated, managed, and administered per U.S. EPA guidance, as evidenced by the Annual and Semi-annual Reports.	**FY 2002 ACTIONS:** The Program has shortened the application timeframe for applicants between applying for the 319 grant money and receiving the funds. Refer to GRTS database for information on grant and sub-grant management. Indiana participates fully in GRTS. ***Ongoing.***
4	***Participate in the Coastal Zone Management Act (CZMA); (IDNR is the lead agency.)***	
	GOAL: IDEM signs Section 6217 of the Coastal Zone Management Plan. The lead agency is the Indiana Department of Natural Resources (IDNR). The Coastal Zone Management plan is acknowledged in the NPS Management Plan.	**FY 2002 ACTIONS:** The Lake Michigan Coastal Program received approval on August 5, 2002. In September of 2001, the draft Environmental Impact Statement for the Lake Michigan Coastal Program was released. 3 public meetings were held in October for comments. Planning has begun on Section 6217 of the Coastal Plan with full support from IDEM. This is the Coastal Polluted Runoff Program 40***% complete.***
5	***Participate in and support the Indiana Clean Lakes Program.***	

Administrative Goals of the Indiana NPS Program: Target 2004		
	GOAL: The Indiana Clean Lakes Program is supported through Section 319 grants and lakes issues are considered in the NPS Management Plan.	**FY 2002 ACTIONS:** The Indiana Lakes Monitoring Program is supported through S319 grants, and grants are made to lake associations or other lake-related organizations where they meet competitive program criteria. Eleven of our open projects currently address lakes issues. For FY 2002, approximately 9.1% of project funding was allocated to lakes-related grants. The program is working actively with lake associations, the IDNR Lake & River Enhancement Program, and the Indiana Lakes Management Society (ILMS) to promote a greater number of competitive proposals from lake associations. ***Ongoing.***
6	***Transfer water quality information from IDEM to the local level to enable sound planning decisions.***	
	GOAL: The Assessment Branch and the 305(b) Coordinator analyze monitoring data and prepare conclusionary information that will be useful for decision making at the local level.	**FY 2002ACTIONS:** For the 2002 Water Quality Assessment Report, the NPS Program supplied information used in pollution source identification. S.319 project data were used. Site specific use information has been completed for the first rotating basin cycle. Data and conclusionary information is available on a site-specific basis for all basins. This data was supplied for several of the WRASs and some of this data is available on the internet. *Ongoing*
	GOAL: NPS Program disseminates this information within two years of each monitoring sweep or as conclusionary data is available, through the Basin Coordinators and project managers.	**FY 2002 ACTIONS:** No Basin Coordinators have as yet been hired, although management continues to seek approval for these positions. Funding has been earmarked for these positions in the 319 and 205j grants. The data is currently distributed by project managers and Regional Watershed Conservationist as well as on the web. ***Ongoing.***
7	***Facilitate development of watershed plans at the local level.***	
	GOAL: Through Basin Coordinators, Natural Resources Conservation Service (NRCS) Resource Conservationists, Project Managers, and partner agency personnel, assist local efforts to develop sensible watershed plans to enable effective projects.	**FY 2002 ACTIONS:** No Basin Coordinators have as yet been hired, although management continues to seek approval for these positions. Three Regional Watershed Conservationists are on IPAs from the NRCS to provide assistance with the local level in developing watershed management plans. They participate in training, information transfer, outreach, and direct assistance to local groups in carrying out watershed inventories, developing watershed management plans, providing guidance on monitoring, and working with steering committees. These three Conservationists are supported through S319 funds that defray 70% of their employment cost. The Watershed Planning Team that was formed is still operating. The team includes the three Conservationists, two members of the NRCS Technology Staff, a representative of the IDNR Lake & River Enhancement Program, the IDEM Watershed Management Section Chief, a representative of the IASWCD, and the NRCS Liaison as team leader. This group coordinates training for local watershed project coordinators, developing watershed planning materials, and reviewing watershed management plans. The Watershed Action Guide for Indiana has been updated and was to go through another revision this past year, but has been delayed. It is anticipated to be completed in the spring of 2003. Six one-day training sessions for local watershed coordinators were done. Three were on the role of a coordinator and three were on making decisions in your watershed. An urban Working on a Watershed Level seminar is still planned for the fall of 2001 in northwestern Indiana. ***Ongoing.***
8	***The Office of Water Management of IDEM will act as a bridge between IDEM and partner agencies such as IDNR, United States Fish and Wildlife Service (USFWS), United States Geological Survey (USGS), Indiana Geological Survey (IGS), NRCS, et al.***	

Administrative Goals of the Indiana NPS Program: Target 2004		
	GOAL: Watershed Management Section participates regularly in partnership entities such as the State Technical Committee, etc.	**FY 2002 ACTIONS:** The Section is regularly represented at Soil Conservation Board meetings, State Technical Committee meetings, and TMDL workgroup meetings. The WATER Committee has disbanded as a regularly meeting entity. It now has become a list server on the Internet and IDEM uses the list server as a method of information dissemination. ***Ongoing.***
	GOAL: IDEM endorses elevating the W.A.T.E.R. Committee or a similar group to the level of a recognized body with authority and support, for the purpose of coordinating watershed restoration and protection throughout the State.	**FY 2002 ACTIONS:** This goal will be changed because the WATER Committee has disbanded as a regularly meeting entity. It now has become a list server and disseminates information by listing issues via the Internet.
9	***Develop and implement the nonpoint source components of the total maximum daily load (TMDL) plans. (TMDLs are administered by the TMDL Program in the Office of Water Management, IDEM.) TMDLs are scheduled to be completed and implementation will have begun by 2015.***	
	GOAL: NPS Program participates in the TMDL workgroup and assists in development of TMDL implementation plans for nonpoint source impairments of Indiana waters.	**FY 2002 ACTIONS:** The Section is working closely with the TMDL Group to coordinate efforts which will improve program integration and facilitate TMDL development in a watershed planning context with increased stakeholder involvement. The Section continues to participate regularly in the TMDL workgroup. 104(b)(3) and 319 funds have been used to support TMDLs. It is anticipated that when implementation plans are prepared for NPS TMDLs, S319 funds will be one avenue of support for carrying out those plans. ***Ongoing.***
	GOAL: Basin Coordinators positions are established to facilitate public outreach, overall coordination, and the implementation of the nonpoint source component of TMDL plans at the watershed level.	**FY 2002 ACTIONS:** No Basin Coordinators have as yet been hired, although management continues to seek approval for these positions. Funds have been earmarked in the 319 and 205j grants for these positions. ***0% complete.***
10	***Develop, coordinate, and implement comprehensive river basin or large watershed planning; integrate watershed planning approach throughout IDEM OWM.***	
	GOAL: Watershed restoration and protection coordination plans are to be completed on 11 8-digit hydrologic units (targeted by the FFY 1999 Unified Watershed Assessment) during FFY 2000;	**FY 2002 ACTIONS:** See progress on Goal #2 (WRASs). IDEM contracted out the completion of the remaining 17 areas in the State. The contract was initiated in August of 2001 and all 32 WRAS's have been completed. *100% complete.*
	GOAL: Put together a proposal for the OWQ to for using the watershed approach office wide.	**FY 2002 ACTIONS:** Actions have not changed since 2001 report. A group of internal staff met and assembled a draft and an executive summary concerning the OWQ transitioning to the watershed approach. Conclusions drawn were that it would take longer than the originally planned 2 years. The six Basin Coordinator positions that are critical to implementing this process have not been hired, although management continues to seek approval for these positions. *Ongoing.*
11	***Integrate nonpoint source planning and project support needs with other sources of financial assistance, including the State Revolving Fund (SRF) and Sections 104 and 205(j) grants.***	

Administrative Goals of the Indiana NPS Program: Target 2004		
	GOAL: Solicitation and award of Section 104(b)(3) and 205(j) grants and SRF- NPS grants is coordinated with the Section 319 project grants in a coherent manner to support watershed restoration and protection.	**FY 2001 ACTIONS:** The104(b)(3), 205(j), and 319 grant programs are being operated consistently, including utilizing similar form letters, creating similar guidance and utilizing the Office of Water Quality Grant Review Committee. The NPS Coordinator participated in the NPS portion of the Clean Water Needs Survey with the SRF Section. Work was done to develop a NPS/SRF Loan Program with the full support of IDEM management. An application for a NPS/SRF loan, a link deposit program, and bank agreements were developed. A ranking and scoring method was developed to use the UWA process to prioritize projects. The demand for SRF/NPS projects has not been determined, however during 2002, the Watershed Management Section helped to market the NPS/SRF program to thousands of individuals and agencies. The SRF program has received only a few NPS/SRF applications to evaluate. Unfortunately, this work has been stalled because of State legislation that prohibits a linked deposit program. Currently the SRF program can offer NPS loans to individuals if they apply through a public entity. The SRF program continues to work on this program and is attempting to overcome the legislative issues. 2*0% **complete.***

APPENDIX E: Water Quality Goals for the NPS Pollution Management Plan for Indiana

Water Quality Goals for the Indiana NPS Program, 2000-2004	
1	**GOAL:** 2000-2001 monitoring of the White River Basin shows a 10% reduction in **nitrogen and phosphorus** levels in the water column of surface waters over 1996-1997 levels. Where possible these changes will be identified as attributable to either nonpoint source or point source pollution. **Status: The West Fork White River basin will be monitored for the second time in 2001, followed by the East Fork White River basin in 2002. New assessments will be reported by 2004.**
2	**GOAL:** In watersheds where **sediment** is believed to be a critical issue as shown in the UWA, the number of acres of cropland farmed to "T" increases by 5% and stream miles protected by riparian vegetative buffers are increased by 10% over tillage transect and Conservation Reserve Program (CRP) enrollment levels recorded in 1996. ("T" is defined as the soil loss, in tons per acre, that can be sustained without reducing productivity.) **Status: The West Fork White River basin will be monitored for the second time in 2001, followed by the East Fork White River basin in 2002. New assessments will be reported by 2004. See below for tillage transect and buffer practice figures.**
3	In White River Basin watersheds where livestock production is believed to be the primary source of **pathogens** (as identified by the UWA) *E. coli* levels decrease by 10% as compared to 1996-1997 levels. **Status: The West Fork White River basin will be monitored for the second time in 2001, followed by the East Fork White River basin in 2002. New assessments will be reported by 2004.**
4	In White River Basin watersheds where nonpoint source pollution is believed to be the primary cause of **aquatic ecosystem degradation**, a 10% improvement in the ALUS (Aquatic Life Use Support) score will be evident in monitoring carried out in 2001-2002 as compared to 1996-1997. **Status: The West Fork White River basin will be monitored for the second time in 2001, followed by the East Fork White River basin in 2002. No further data will be available until 2003.**
5	An **atrazine** management plan will be developed by 2004 for the St. Joseph watershed, working cooperatively with Michigan DEQ, in order to reduce atrazine loading to Lake Michigan by 30% by 2009. **Status: The St Joseph River Basin Commission has discussed this issue but no concrete steps have been taken towards development of a plan to address atrazine loading in Lake Michigan.**
6	In White River Basin watersheds where **low dissolved oxygen** (DO) levels are believed to be due to NPS pollution, as indicated in FFY 2001 amendments to the UWA, there will be a 10% improvement in the ALUS (Aquatic Life Use Support) score shown by monitoring carried out in 2001-2002 as compared to 1996-1997. **Status: The West Fork White River basin will be monitored for the second time in 2001, followed by the East Fork White River basin in 2002. No further data will be available until 2003.**
The White River Basin is specified in these targets because it is the only basin that will have been sampled, analyzed, and assessed two times (1996-1997 and 2001-2002) by 2004. In subsequent years, similar targets will be established for the Upper and Lower Wabash, Kankakee, Great Lakes, and Ohio basins.	

APPENDIX F: Final Reports & Products for Section 319 Projects Closing in FFY 2002

ARN	FFY	Project Name
99-325	1998	Water Quality Monitoring Educational Program
99-222	1999	St. Marys River Pesticide, Nutrient & Sediment Reduction Demo Project
99-381	2000	Tippecanoe River Watershed Project
99-388	2000	Bank Stabilization on Trittipo Ditch
99-387	2000	Septic Cost Share Program
00-75	1997	High Residue Corn Education & Outreach Project
99-215	1999	Diagnostic Studies McFadden Creek and Pigeon Creek
99-213	1999	Lite on the Land – Implementing Logging BMPs
00-93	2000	NPS Pollution Assessment
99-382	2000	Farm Progress Show 2001
99-219	1999	Water Quality Improvement in Kilmore Creek
99-211	1999	Integrated Nutrient Management
99-209	1999	Water Quality Improvement through Livestock Management Planning
99-212	1999	Upper Eel River Manure Management
01-277-01	1997	Watershed Restoration Action Strategies
99-203	1998	Blue River Riparian Reforestation
98-104	1999	Sand Creek Watershed Project
99-214	1999	One Million Trees for Cleaner Water
99-225	1999	Eel & Lower White River Watersheds CORE4 Conservation Project
99-326	1999	Nutrient Management Assistance in the Patoka Watershed
98-101	1999	Indiana Lakes Education
99-385	2000	Planning with Power
00-99	2000	Deep River/Turkey Creek Watershed Management Plan
N/A	1999	Statewide E. coli Lab for TMDLs
98-99	1999	Indiana Clean Lakes Program
99-380	2000	Indian Creek Watershed Alliance
00-47	1997	Great Scientific Coral Reef Adventure
00-97	2000	NRCS Liaison – Resource Conservationist
00-24	1998	MRBC Land Use Conversion Project

99-221	1999	Cedar Lake Watershed Protection Project
99-220	1999	Pigeon Creek Bank Stabilization
98-176	1998	Potential NPS Contamination of the Spring Mill Lake Drainage Basin
99-206	1999	Analysis of Nitrate in Groundwater in Jackson County, IN
99-208	1999	Watershed Assessment of Potential Pesticide and Nutrient Losses

The following Final Reports will be mailed shortly under separate cover

99-391	2000	Lower White River Technical Assistance
99-383	2000	St. Joseph River Watershed Public Outreach Project